Monday, Wednesday: 9:00-10:00am

Recommended reading: Chabner and Longo, Cancer Chemotherapy and Biotherapy, 5th Edition@ and literature readings

Course director: Dr. Larry Matherly and Dr. Yubin Ge

1. January 8 (Mon): Pharmacology of anticancer drugs II: Jing Li
2. 10 (Wed): Pharmacology of anticancer drugs I: Jing Li

January 15 (Mon) HOLIDAY

3. 17 (Wed): Chemotherapy and the cell cycle: George Brush
4. 24 (Wed): Antimetabolites I: Larry Matherly
5. 29 (Mon): Antimetabolites II: Larry Matherly
6. 31 (Wed): Antitumor antibiotics: Steve Patrick
7. February 5 (Mon): Alkylating agents, platinums: Steve Patrick
8. 7 (Wed): Therapy of brain tumors: Ana deCarvalho

February 9 (Wed): EXAM 1 (Lectures 1-8)

9. 12 (Mon): Radiation therapy: Mike Joiner
10. 14 (Wed): Radiation therapy: Mike Joiner
11. 19 (Mon): Tumor metabolism: Jian Wang
12. 21 (Wed): Personalized medicine for cancer: Aliccia Bollig-Fischer
13. 26 (Mon): Immunotherapy of Cancer: Qing-Sheng Mi
14. 28 (Wed): Immunotherapy of Cancer: Qing-Sheng Mi

March 9 (Fri) EXAM 2 (Lectures 9-16)

March 12-17: SPRING BREAK

17. March 19 (Mon): Stem Cells and Cancer Therapy: Guojun Wu
18. 21 (Wed): Steroid and Hormone sensitive cancers: Manohar Ratnam
19. 26 (Mon): Steroid and Hormone sensitive cancers: Manohar Ratnam
20. 28 (Wed): Apoptosis and Chemotherapy: Gen Sheng Wu
21. April 2 (Mon): Apoptosis and Chemotherapy: Gen Sheng Wu
22. 4 (Wed): Targeting transcription in cancer therapy: Yubin Ge
23. 9 (Mon): New Strategies for AML Therapy: Yubin Ge
25. 11 (Wed): Tumor Imaging: Nerissa Viola-Villegas

April 16 (Mon) and April 18 (Wed)--AACR (No class)

26. April 23 (Mon): Clinical trials: Elisabeth Heath

April 25 EXAM 3 (Lectures 17-26)
Learning outcomes:
CB7240 ("Principles of Cancer Therapy") is the key course on cancer therapy offered by the Cancer Biology Graduate Program. The purpose of this course is to introduce the graduate students to the biology of both solid tumors and leukemias, and the principles of conventional chemotherapy, targeted therapy, radiation therapy, and immunotherapy. The lectures cover mechanisms of action of anticancer drugs, pharmacokinetics and pharmacodynamics, and the design and implementation of clinical trials. Besides FDA-approved agents, this course will also acquaint students with promising agents in the pipeline and their clinical development. At the end of the semester, the students are expected to have a good understanding of the following:

1. Biology of solid tumors and leukemia
2. General principles of cancer therapy
3. Mechanisms of action of anticancer drugs, including conventional chemotherapy drugs, molecularly targeted drugs, and immunotherapies
4. Pharmacokinetics and pharmacodynamics
5. Design of clinical trials

Assessment/Grading Information:
Grades will be based on scores from written exams. There will be 3 written exams: Exam 1 (Lectures 1-8) which will be held on February 9, 2018; Exam 2 (Lectures 9-16) which will be held on March 9, 2018; and Exam 3 (Lectures 17-26) on April 25.